

Odum School of Ecology

Deborah Nagle
Director, Water Permits Division
Office of Waste Water Management
USEPA
Via email: nagle.deborah@epa.gov

26 April 2015

Dear Ms. Nagle,

I am writing as the former chair of the SAB panel that wrote the 2011 report on ballast water standards (*Efficacy of Ballast Water Treatment Systems* EPA-SAB 11-009). I am aware that your office has received a letter from some of the former panel members stating that the report contained erroneous conclusions. Although all former panel members received the re-analysis and were given the opportunity to sign the letter, 16 of the 22 panel members did not sign it. What follows is a brief summary of reasons provided by some of the former panel members who did not sign the letter:

- Some were not willing to take part in a discussion of an SAB report if the discussion was not open to the public.
- When the data available to the panel were collected, most facilities did not have a
  quality management system. The data cannot be considered reliable without
  proper QA/QC systems and transparency in conducting independent testing.
- The sampling methods and volumes used in the testing data available to the panel have been deemed inadequate, and some methods used (e.g., for living organisms in the ≥10 µm and <50 µm size classes) have not been validated. One cannot conclude that a series of zeros means that a ballast water management system is 10 or 100 times more stringent than the D-2 standard unless sample collection methods, analytical detection limits, and overall data quality are thoroughly understood.
- The data available to the panel were generated with IMO G8 methods that did not have the precision to discern a difference between meeting 1X and 10X the D-2 standard.
- There has been considerable testing done since the panel report, and some of that has been done to the ETV protocol, which significantly increases confidence in the data. Rather than revisiting conclusions based on the data of questionable

quality that were available to the panel at the time of the report, efforts would be better spent considering the more recent data, which are of both higher quality and quantity.

I hope you will find this summary useful.

Sincerely,

Judy L. Meyer Professor Emeritus

Odum School of Ecology

University of Georgia

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Cc: Christopher Zarba, Director Science Advisory Board Staff Office, USEPA

Dr. E. Fred Benfield, Department of Biological Sciences, Virginia Tech, Blacksburg, VA

Dr. Ingrid Burke, Ruckelshaus Institute of Environment and Natural Resources, University of Wyoming, Laramie, WY

Dr. G. Allen Burton, School of Natural Resources and Environment, University of Michigan, Ann Arbor, MI

Dr. Peter Chapman, Environmental Sciences Group, Golder Associates Ltd, Burnaby, BC, Canada

Dr. William Clements, Department of Fish, Wildlife, and Conservation Biology, Colorado State University, Fort Collins, CO

Dr. Loveday Conquest, School of Aquatic and Fishery Sciences, University of Washington, Seattle, WA

Dr. Robert Diaz, Department of Biological Sciences, Virginia Institute of Marine Science, College of William and Mary, Gloucester Pt., VA

Dr. Wayne Landis, Department of Environmental Toxicology, Huxley College of the Environment, Western Washington University, Bellingham, WA

Dr. Thomas W. La Point, Department of Biological Sciences, University of North Texas, Denton, TX

Dr. Amanda Rodewald, Cornell Lab of Ornithology, Cornell University, Ithaca NY

Dr. James Sanders, Skidaway Institute of Oceanography, Savannah, GA

Dr. JoAnn Burkholder, Department of Plant Biology, North Carolina State University, Raleigh, NC

Dr. Andrew N. Cohen, Center for Research on Aquatic Bioinvasions, Richmond, CA

Dr. Fred Dobbs, Ocean, Earth and Atmospheric Sciences, Old Dominion University, Norfolk, VA

Dr. Lisa Drake, Center for Corrosion Science and Engineering, Naval Research Laboratory, Key West, FL

- Dr. Charles Haas, College of Engineering, Drexel University, Philadelphia, PA
- Mr. Edward Lemieux, Center for Corrosion Science Engineering, Naval Research Laboratory, Washington, DC
- Dr. David Lodge, Biological Sciences Department, University of Notre Dame, Notre Dame, IN
- Mr. Kevin Reynolds, The Glosten Associates, Seattle, WA
- Dr. Mario Tamburri, Chesapeake Biological Laboratory, Solomons, MD
- Dr. Nicholas Welschmeyer, Moss Landing Marine Laboratories, San Jose State University, Moss Landing, CA